

EXHIBIT 1

LEXSEE 2006 U.S. APP. LEXIS 7889

ON DEMAND MACHINE CORPORATION, Plaintiff-Cross Appellant, v. INGRAM INDUSTRIES, INC. and LIGHTNING SOURCE, INC., Defendants-Appellants, and AMAZON.COM, INC., Defendant-Appellant.

05-1074,-1075,-1100

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

2006 U.S. App. LEXIS 7889

March 31, 2006, Decided

PRIOR HISTORY: [*1] Appealed from: United States District Court for the Eastern District of Missouri. Magistrate Judge Mary Ann L. Medler.

DISPOSITION: REVERSED; CROSS APPEAL DISMISSED.

CASE SUMMARY:

PROCEDURAL POSTURE: Appellants, corporations, appealed the judgment of the United States District Court for the Eastern District of Missouri, holding them liable for infringement of a patent owned by appellee company. The corporations challenged the district court's construction of several claim terms, disputed various jury instructions, and argued that a reasonable jury could not have found infringement on the correct claim construction.

OVERVIEW: The patent was for a system wherein a single copy of a book was printed and bound, at the site of sale, upon provision to the customer of computerized information about the book. The appellate court found that "sales information" required that promotional information was stored in the computer that was made available to the customer. The jury instruction, if read to mean that identifying information alone could satisfy the "sales information" term, was incorrect. On the correct construction of "sales information," claim clauses 3 and 4 could not have been met by the corporation's activities, for it was not disputed that the books ordered from the corporations were ordered solely upon identifying data such as title without promotional information from the corporations. The patent specification repeatedly reinforced its usage of the term "customer" as the retail consumer, and the focus of the patent was immediate single-copy printing and binding initiated by the customer and conducted at the customer's site. The district court's definition of "customer" could not eliminate those constraints in order to embrace the remote large-scale production of books for

publishers and retailers.

OUTCOME: The judgment of infringement was reversed, and the damages award was vacated. The cross-appeal was moot and was dismissed.

LexisNexis(R) Headnotes

Patent Law > Infringement Actions > Claim Interpretation > General Overview

Patent Law > Jurisdiction & Review > Standards of Review > De Novo Review

Patent Law > Jurisdiction & Review > Standards of Review > Substantial Evidence

[HN1] Claim construction is a matter of law, and receives plenary review on appeal. The reviewing court determines whether a reasonable jury, on correct instruction of law, could reasonably have reached the verdict reached by the jury; that is, was there substantial evidence in support of the verdict, when disputed questions of fact and factual inferences are resolved in favor of the party that received the verdict.

Civil Procedure > Appeals > Standards of Review > Abuse of Discretion

Civil Procedure > Appeals > Standards of Review > De Novo Review

Patent Law > Jurisdiction & Review > Standards of Review > Abuse of Discretion

Patent Law > Jurisdiction & Review > Standards of Review > De Novo Review

[HN2] A jury instruction based on incorrect law, such as an erroneous claim construction that may have affected the verdict, receives de novo review. An erroneous jury instruction may warrant a new trial, or the court may consider whether, on the correct instruction, the jury could have reached only one verdict. The court's award of a royalty-bearing license during appeal and refusal to issue an immediate injunction are reviewed on the standard of

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abuse of discretion.

Patent Law > Claims & Specifications > General Overview

Patent Law > Claims & Specifications > Description Requirement > General Overview

Patent Law > Infringement Actions > Claim Interpretation > General Overview

[HN3] The United States Court of Appeals for the Federal Circuit has emphasized that the proper judicial construction of a claim and its terms is from the viewpoint of a person of ordinary skill in the field of the invention; the court must determine how such a person would understand the claim in the context of the particular technology and the description in the specification, with due reference to the prosecution history. Thus the court, resolving conflict, stressed the dominance of the specification in understanding the scope and defining the limits of the terms used in the claim.

Patent Law > Infringement Actions > Claim Interpretation > Aids

[HN4] The word "sales" is an adjective modifying the word "information." The dictionary definition of "information" is knowledge derived from study, experience, or instruction; a non accidental signal used as an input to a computer or communication system. Multiple dictionary definitions of a word should be construed in a manner which is consistent with their use in the intrinsic record.

Patent Law > Claims & Specifications > Description Requirement > General Overview

Patent Law > Infringement Actions > Claim Interpretation > Scope

[HN5] In general, the scope and outer boundary of claims is set by the patentee's description of his invention.

Patent Law > Claims & Specifications > Description Requirement > General Overview

Patent Law > Infringement Actions > Claim Interpretation > Scope

[HN6] When the scope of the invention is clearly stated in the specification, and is described as the advantage and distinction of the invention, it is not necessary to disavow explicitly a different scope.

Patent Law > Claims & Specifications > Description Requirement > Elements

Patent Law > Claims & Specifications > Description Requirement > Written Description Versus Enablement

Patent Law > Infringement Actions > Claim Interpretation > Scope

[HN7] The role of the specification is to describe and enable the invention. In turn, the claims cannot be of

broader scope than the invention that is set forth in the specification.

Patent Law > Claims & Specifications > Description Requirement > Means Plus Function

Patent Law > Infringement Actions > Doctrine of Equivalents > General Overview

[HN8] See 35 U.S.C.S. § 112(6).

Patent Law > Infringement Actions > Claim Interpretation > Fact & Law Issues

Patent Law > Infringement Actions > Claim Interpretation > Means Plus Function

Patent Law > Infringement Actions > Doctrine of Equivalents > Fact & Law Issues

[HN9] Although equivalents do not lose their factual identity in a means-plus-function context, in the uncertain boundary between law and fact in claim construction, the giving of an instruction that is not incorrect factually is not reversible error. Limitations on the structure for means plus function claims must relate to the function at issue.

Patent Law > Claims & Specifications > Claim Language > Preambles

[HN10] In considering whether a preamble limits a claim, the preamble is analyzed to ascertain whether it states a necessary and defining aspect of the invention, or is simply an introduction to the general field of the claim. One court aptly described the inquiry as whether the preamble is necessary to give life, meaning and vitality to the claims or counts. The preamble serves to focus the reader on the invention that is being claimed.

Patent Law > Claims & Specifications > Claim Language > General Overview

Patent Law > Claims & Specifications > Description Requirement > General Overview

Patent Law > Infringement Actions > Claim Interpretation > General Overview

[HN11] Each term standing alone can be construed as having varying degrees of breadth, each term must be construed to implement the invention described in the specification. The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction. Use of the specification as a concordance for the claim is a basic concept of patent law. Care must be taken lest word-by-word definition, removed from the context of the invention, leads to an overall result that departs significantly from the patented invention.

COUNSEL: William Bush Cunningham, Jr., Polster, Lieder, Woodruff & Lucchesi, L.C., of St. Louis, Missouri, argued for plaintiff-cross appellant. With him

on the brief was McPherson D. Moore. Of counsel on the brief was David B.B. Helfrey, Helfrey, Simon & Jones, P.C., of Clayton, Missouri.

William K. West, Jr., Howrey Simon Arnold & White, LLP, of Washington, DC, argued for defendants-appellants. With him on the brief were David W. Long, Pamela S. Kane and Jim W. Ko. Of counsel on the brief were Keith A. Rabenberg and Jennifer E. Hoekel, Senniger Powers, of St. Louis, Missouri.

JUDGES: Before NEWMAN, MAYER, and BRYSON, Circuit Judges.

OPINIONBY: NEWMAN

OPINION: NEWMAN, Circuit Judge.

Ingram Industries, Inc., Lightning Source, Inc., and Amazon.com, Inc. (collectively the defendants) appeal the judgment of the United States District Court for the Eastern District of Missouri, n1 holding them liable for infringement of *United States Patent No. 5,465,213* (the Ross patent) owned by On Demand Machine Corporation (ODMC). We conclude that the [*2] jury verdict of infringement was based on a partly incorrect claim construction, and that on the correct construction a reasonable jury could not find the patent to be infringed. Accordingly, the judgment of infringement is reversed and the damages award vacated. The grant of a royalty-bearing license during appeal is vacated, and the issues raised by cross-appeal are moot.

n1 On Demand Machine Corp. v. Ingram Indus., Inc., No. 4:01cv1668MLM (E.D. Mo. Oct. 28, 2004) (judgment); July 23, 2004 (order denying enhancement of damages); July 5, 2003 (claim construction order).

BACKGROUND

The Ross patent is for a "System and Method of Manufacturing a Single Book Copy," wherein a single copy of a book is printed and bound, generally at the site of sale, upon provision to the customer of computerized information about the book. According to the Ross patent, a retail seller of books provides a computer console for customer use, wherein the computer stores promotional and other information such as book reviews and price, and also stores the complete text of the book and the design of its cover. The customer can browse through the stored information, inspect [*3] the text, and select a book for purchase; the book is then printed and bound, preferably at the same site. The patent's Summary of the Invention

describes the system as follows:

A customer module (e.g. a customer kiosk) permits the consumer to access the promotional sales information on a display screen which may include general information such as a list of best sellers or specific information (e.g. a sample chapter) about individual books in which the consumer may have some interest. Such promotional sales information may include a graphical simulation of the book, descriptive information provided by the publisher, as well as a synopsis and critique of the book by a book reviewer presented in full motion video and stereo sound. The consumer may browse through the introduction, abstracts or selected pages of the book on the computer module screen.

It is therefore an object of the invention to provide a book manufacturing system which is capable of storing data corresponding to the text and color graphical cover of tens of thousands of different books, as well as promotional sales text and color graphics for aiding the consumer in choosing a book for purchase, and facilitate [*4] the high speed manufacture of a single copy of a selected book on the immediate premises while the customer waits for a very short time.

Col. 1, line 63 -- col. 2, line 8; col. 3, lines 7-14. The patent explains the advantages of providing promotional information to the customer, along with immediate production and delivery of the selected book. Patent Figure 2 shows a sales kiosk with the customer at the computer, and adjacent printing/binding equipment:

GET DRAWING SHEET 2 OF 5.

Defendant Lightning Source is a book printing company with a factory in LaVergne, Tennessee, and defendant Ingram Industries is the corporate parent of Lightning Source. Lightning Source prints and sells books as ordered by publishers, wholesalers, and retailers such as Amazon.com, but does not sell directly to the public. Purchasers may order books from Lightning Source through its website or by electronic data interchange (EDI), identifying the book by its title and author or ISBN (International Standard Book Number). Lightning Source usually prints books in batches, often as large as several hundred books, but may also print single copies if ordered. Lightning Source [*5] testified that the turn-around time from order until delivery ranges from one to fifteen days. Defendant Amazon.com is a seller of books and other products to the public on the internet: its internet website

provides promotional and sales information on individual books, and receives orders from customers. Amazon.com does not print books, but may order single or multiple copies from Lightning Source to fill orders from the public.

While the Ross patent application was pending, Mr. Ross offered to license his invention to Ingram Industries, a commercial printer. They entered into a one-year confidentiality agreement beginning in February 1995, and Mr. Ross disclosed his patent application and business plans to Ingram. The Ross patent issued on November 7, 1995. Ingram sought the advice of counsel, who advised that Ingram could practice on-demand printing in a non-infringing manner. In September 1996 Ingram informed Mr. Ross that Ingram was not interested in obtaining a license. Ingram then created a subsidiary company, Lightning Source, to print books to order for resellers but not for the general public.

In 1997 ODMC requested reexamination of the Ross patent, citing several additional [*6] references. Claims 7 and 8 were duly confirmed by the Patent and Trademark Office, and are as follows (with bracketed numbers as added by the district court):

7. A method of high speed manufacture of a single copy of a book comprising the steps of: [2] storing the text of a plurality of books in a computer, [3] storing a plurality of covers for books to be printed in said computer, said covers being stored in a bit mapped format, [4] storing sales information relating to said plurality of books in a computer, [5] providing means for a customer to scan said sales information, [6] enabling the customer to select which book or a portion of a plurality of books, [7] commanding a computer to print the text of said selected books and a cover in response to said selection, [8] retrieving the text of said selected books from a computer, [9] printing the text of said selected books on paper pages, and [10] binding said paper pages together to form said selected one of said books

Claim 8 is similar, but varies in the clauses relating to the book cover:

8. A method of high speed manufacture of a single copy of a book comprising the steps of: [2] storing [*7] the text of a plurality of books in a computer, [3] storing sales information relating to said plurality of books in a computer, [4] providing means for a cus-

tomers to visually review said sales information, [5] commanding a computer to print the text of a selected one of said books in response to a customer's selection, [6] retrieving the text of said selected one of said books from a computer, [7] printing the text of said selected one of said books on paper pages, [8] binding said paper pages together to form said selected one of said books, [9] storing graphical information corresponding to the cover of each of said books, [10] commanding a computer to reproduce said graphical information on a book cover, and [11] binding said paper pages together with said cover therearound.

After the reexamination Mr. Ross informed Ingram that Lightning Source was infringing the Ross patent and again offered a license. Ingram and Lightning Source again sought the opinion of counsel, who advised that "the printing of books in accordance with the flow diagram of Exhibit A by Ingram, would not constitute infringement of the claims of the Ross patent." (Opinion Letter of [*8] Sept. 20, 1996). Counsel also advised that infringement would not be found if the claims were limited to the embodiment shown in the specification, but cautioned that if a trier of fact were to look at the claim language in isolation from the specification and the embodiment described therein, infringement might be found, although such broad claims would be of questionable validity in view of the prior art. Opinion letter of November 19, 1998 ("To be at risk, the claims would have to be interpreted very broadly and a broad interpretation of the claims could well invalidate them.") Lightning Source sought the opinion of other counsel, who were of similar view. Ingram and Lightning Source then declined the proffered license.

ODMC filed suit against Ingram Industries, Lightning Source, and Amazon.com, alleging infringement of claims 7 and 8 and that the infringement was willful. The district court held a Markman hearing and construed various claim terms, and instructed the jury accordingly. The jury returned a verdict of infringement, and awarded \$15,000,000 in compensatory damages. The jury also found the infringement to be willful, but the court denied ODMC's request for enhanced [*9] damages and attorney fees, explaining that this was "an extremely close case." On this appeal the defendants challenge the district court's construction of several claim terms, dispute various jury instructions, and argue that a reasonable jury could not have found infringement on the correct claim construction. They also state that the damages award was excessive or speculative.

The district court rejected ODMC's request for an immediate injunction, and authorized continuing operation by the defendants through the conclusion of all appellate and post-appellate proceedings at a royalty rate of 12.64425% of Lightning Source's revenues for operations covered by the patent. ODMC describes this remedy as a compulsory license and argues that it was improperly granted, citing the general rule that a patentee has the right to an injunction. This is the subject of ODMC's cross-appeal.

DISCUSSION

[HN1] Claim construction is a matter of law, and receives plenary review on appeal. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 978 (Fed. Cir. 1995), aff'd, 517 U.S. 370, 116 S. Ct. 1384, 134 L. Ed. 2d 577 (1996); see *Cybor Corp. v. FAS Technologies, Inc.*, 138 F.3d 1448, 1456 (Fed. Cir. 1998) [*10] (*en banc*). The reviewing court determines whether a reasonable jury, on correct instruction of law, could reasonably have reached the verdict reached by this jury; that is, was there substantial evidence in support of the verdict, when disputed questions of fact and factual inferences are resolved in favor of the party that received the verdict. See, e.g., *Richardson v. Suzuki Motor Co., Ltd.*, 868 F.2d 1226, 1235 (Fed. Cir. 1989).

[HN2] A jury instruction based on incorrect law, such as an erroneous claim construction that may have affected the verdict, receives de novo review. An erroneous jury instruction may warrant a new trial, see *Ecolab Inc. v. Paracclipse, Inc.*, 285 F.3d 1362, 1373 (Fed. Cir. 2002), or the court may consider whether, on the correct instruction, the jury could have reached only one verdict. See, e.g., *Cybor*, 138 F.3d at 1454. The court's award of a royalty-bearing license during appeal and refusal to issue an immediate injunction are reviewed on the standard of abuse of discretion.

I

Claim Construction

The district court held a Markman hearing and construed the disputed terms of the claims. [*11] Only claim 8 was presented for jury verdict, and the claim terms are reviewed in that context.

These claim construction proceedings took place in 2002-03, at a time when conflicting Federal Circuit panel opinions were producing uncertainty as to the law of claim construction. See *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (*en banc*) (clarifying the law and resolving conflicts in claim construction). [HN3] This court in *Phillips* emphasized that the proper judicial construction of a claim and its terms is from the viewpoint of a person

of ordinary skill in the field of the invention; the court must determine how such a person would understand the claim in the context of the particular technology and the description in the specification, with due reference to the prosecution history. Thus the court in *Phillips*, resolving conflict, stressed the dominance of the specification in understanding the scope and defining the limits of the terms used in the claim. 415 F.3d at 1313.

1. "Sales Information," Clauses [3] and [4] of Claim 8

Although this case was tried before *Phillips* was decided, the district court mostly applied [*12] the precedent whose correctness has been confirmed. For example, although the district court approached the construction of "sales information" in claim clauses [3] and [4] by reciting general dictionary definitions, as follows:

[HN4] The word "sales" is an adjective modifying the word "information." The dictionary definition of "information" is "1. knowledge derived from study, experience, or instruction; . . . 5. a non accidental signal used as an input to a computer or communication system." [citing several dictionaries],

the court held, correctly, that "these multiple dictionary definitions of 'information' and 'sales' should be construed in a manner which is consistent with their use in the intrinsic record." The district court then defined "sales information" as "data stored in a computer which is involved in the promoting and selling of a book," and that the term is not limited to promotional information, but includes descriptive information as well, such as price. The jury instruction was as follows:

The term "sales information" in Claim 8 is broader than promotional information and may include descriptive information which would aid in making a sale [*13] to the customer, such as the price of the book, Library of Congress notice, fly sheets, synopsis, plot outline, author's biographical summary, price, SKU and/or ISBN number.

The defendants argue that the district court construed and instructed the jury on "sales information" too broadly. They argue that the patent specification and prosecution history require that "sales information" always includes information that is promotional in nature, and that the term is not met by the provision of only price and identifying information such as title or ISBN. ODMC responds that the claims are not limited to the embodiment illustrated in the specification, and that "sales information" is infringed even when there is no promotional information included

with the identifying information. In finding infringement the jury necessarily accepted the ODMC view, for the orders to Lightning Source carry only identifying information, and Lightning Source provides no promotional information.

[HN5] In general, the scope and outer boundary of claims is set by the patentee's description of his invention. *Phillips*, 415 F.3d at 1313-14. The specification makes clear that sales information is that [*14] which would help the consumer to choose a book. We agree with the defendants that the prosecution history requires this claim construction, for the inclusion of promotional information was a material distinction from the prior art. Mr. Ross stressed that in his invention a customer can browse among books based on information concerning the substantive content of the book. The specification identifies "descriptive material such as a synopsis, plot outline, author's biographical summary, etc." as promotional information. Col. 6, lines 18-21. ODMC stressed this distinction from the prior art on reexamination:

It is submitted that in no way is a job file descriptor to be confused with means for allowing a customer to browse among a multiplicity of books stored on Patent Owner's system and to select the book of interest for on-demand printing and delivery to the customer.

The reexamination examiner agreed, stating as the ground of patentability that:

The prior art does not disclose or suggest the storing of sales information for customer review which provides descriptive information relating to stored books in a computer in combination with the customer selection [*15] of books or portions of books,

ODMC states that the term "sales information" is met by identifying information such as title or ISBN alone, for the specification states that the computer stores a "Book Attributes Description" and lists eleven attributes that "include the title of the book, its ISBN number and other information (as shown in FIG. 5) which help to describe the book and to provide the potential customer [with information] about the book." Col. 11, lines 3-9. ODMC argues that the ISBN is sufficient sales information, and that this claim term is met whether or not promotional material such as book reviews are also made available to customers. ODMC argues that the jury necessarily so found, in finding infringement.

The defendants argue that ODMC disavowed this in-

terpretation in order to obtain the patent, and represented to the patent examiner that the inclusion of promotional material is what distinguishes this invention from the prior art. We agree with the defendants that "sales information" requires that promotional information is stored in the computer that is made available to the customer. The ISBN or the title and author are file identifiers, not promotional [*16] information. The jury instruction, if read to mean that identifying information alone can satisfy the "sales information" term, is incorrect.

We conclude that on the correct construction of "sales information," claim clauses [3] and [4] cannot be met by Lightning Source's activities, for it was not disputed that the books ordered from Lightning Source were ordered solely upon identifying data such as title or ISBN, without promotional information from Lightning Source. ODMC argues that Amazon.com provides sales information, producing joint infringement as to the 10% of Lightning Source's production that is ordered by Amazon. We discuss this aspect in Part II, *infra*.

2. "Customer," Clauses [4] and [5] of Claim 8

The district court construed "customer" to mean anyone "who buys goods or services," and that the "customer" does not have to be an individual consumer or a retail customer. The court rejected the defendants' argument that the Ross patent is limited to "direct retail customer sales," and instructed the jury as follows:

The word "customer" is "one who buys goods or services" and, is not limited to a retail customer.

The defendants [*17] argue that this claim interpretation is broader than the specification allows, and that the entire focus of the Ross patented invention is that the "customer" is the person who orders and immediately receives the printed-to-order book, the ultimate consumer. The defendants point out that their orders come only from resellers, not from individual purchasers, and that printing is at a remote factory, not at the customer's site. They point out that the Ross specification describes the customer as a consumer who, upon choosing a book, sets in motion the "high speed manufacture of a single copy of a selected book on the immediate premises while the customer waits for a very short time." Col. 3, lines 7-15. The defendants argue that the district court, in refusing to include this limitation of "customer" in its Markman definition and jury instruction, placed too much weight on a dictionary definition of "customer" that is out of context.

ODMC argues that the patentee did not disavow the standard dictionary meaning of "customer," and that the

Ross invention is not limited to any specific kind of customer. However, [HN6] when the scope of the invention is clearly stated in the specification, [*18] and is described as the advantage and distinction of the invention, it is not necessary to disavow explicitly a different scope. See *AstraZeneca AB v. Mut. Pharm. Co.*, 384 F.3d 1333, 1339-40 (Fed. Cir. 2004) ("Where the general summary or description of the invention describes a feature of the invention (here, micelles formed by the solubilizer) and criticizes other products (here, other solubilizers, including co-solvents) that lack that same feature, this operates as a clear disavowal of these other products"); *Bell Atlantic Network Services, Inc. v. Covad Communications Group, Inc.*, 262 F.3d 1258, 1268-69, 1271 (Fed. Cir. 2001) ("the written description 'can provide guidance as to the meaning of the claims, thereby dictating the manner in which the claims are to be construed, even if the guidance is not provided in explicit definitional format'" (quoting *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1344 (Fed. Cir. 2001))).

The Ross specification repeatedly reinforces its usage of the term "customer" as the retail consumer. See col. 7, lines 24-25 ("All customer actions are conducted within customer [*19] console 103"); col. 15, lines 59-60 ("the customer seats himself or herself in front of computer screen 157" as depicted in Fig. 2); col. 2, lines 8-12 ("if the consumer wishes to purchase a book, he may either pay for the book through a store clerk . . . or the consumer may enter his credit card into the system"). The specification distinguishes "general purpose machines . . . not specifically designed to be consumer operated for the on demand, automatic manufacturing of a single book at the point of sale." Col. 10, lines 37-43.

In *Phillips*, 415 F.3d at 1321, the *en banc* court explained that [HN7] the role of the specification is to describe and enable the invention. In turn, the claims cannot be of broader scope than the invention that is set forth in the specification. Although we agree with the district court that the Ross invention does not concern itself with whether the "customer" reads the book or obtains it for resale, the focus of the Ross patent is immediate single-copy printing and binding initiated by the customer and conducted at the customer's site. The district court's definition of "customer" cannot eliminate these constraints in order to embrace the [*20] remote large-scale production of books for publishers and retailers.

3. "Providing Means for a Customer to Visually Review," Clause [4] of Claim 8

The district court correctly viewed claim clause [4], "providing means for a customer to visually review said sales information," to be in means-plus-function form

pursuant to 35 U.S.C. § 112(6), n2 and instructed that the customer-operated computer module is the corresponding structure shown in the specification. The jury was instructed as follows:

Claim 8, clause 4, recites: "providing means for a customer to visually review said sales information." The word "providing" in this clause has its usual and customary meaning, including to supply for use, contribute, or furnish.

The phrase "means for a customer to scan said sales information" in this clause [the words of claim 7] is interpreted to include a customer computer module, as described in Column 13, lines 54-67 and Column 14, lines 1-9, but does not include elements in the patent specification, which are referred to as being preferable, and thus a customer seat and ambient light are not included. Because this claim language concerns [*21] a means plus a function, the words "means for a customer to scan said sales information" include equivalents of a customer computer module which has the identical function permitting a customer to visually review the sales information which has been stored in a computer. Such equivalents include any computer monitor that gives a customer access to sales information that has been stored in a computer and any user input device for a customer to perform this function. These include accessing information by touching the computer screen or by use of structure that is equivalent thereof.

The defendants argue that the district court improperly invaded the province of the jury when it announced the equivalents that are "included," stating that it is the role of the trier of fact, here the jury, to determine equivalents under 35 U.S.C. § 112(6). See *Utah Med. Prods., Inc. v. Graphic Controls Corp.*, 350 F.3d 1376, 1383 (Fed. Cir. 2003) (equivalents under § 112(6) is a question of fact); *Odetics, Inc. v. Storage Tech. Corp.*, 185 F.3d 1259, 1268 (Fed. Cir. 1999) (comparing overall structures corresponding to the claimed function). [*22]

n2 Section 112(6) [HN8] An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts de-

scribed in the specification and equivalents thereof.

ODMC states that it was not incorrect for the district court, in the context of claim construction, to instruct the jury as to possible equivalents of the computer monitor and how the customer accesses the sales information. [HN9] Although equivalents do not lose their factual identity in a means-plus-function context, in the uncertain boundary between law and fact in claim construction, the giving of an instruction that is not incorrect factually is not reversible error. The infringement issue as to this clause, as the district court's instruction implemented, is not whether the computer contains a touch screen, but whether the defendants "provide" a computer means to customers. See *Acromed Corp. v. Safomor Danek Group, Inc.*, 253 F.3d 1371, 1382 (Fed. Cir. 2001) (limitations on the structure for means plus function [*23] claims must relate to the function at issue).

It is undisputed that these defendants do not provide a computer to the customer. ODMC states that the defendants provide themselves with computers and that Amazon.com provides sales information that a customer can access through any computer. However, this is not the Ross invention, which requires that the bookseller "provides" the customer with the computer for use in this unified browsing/ordering/printing system. Although a witness for ODMC testified to his belief that the defendants encourage retail booksellers to provide computers for customer use, there was no evidence of such booksellers providing a computer system whereby the ultimate customer can initiate printing and binding of a selected book from data that had been entered into the computer.

Amazon states that while it provides computer-accessible information about books, including promotional information, it does not provide computers or computer kiosks. Consumers use their own computers to order books from Amazon, which in turn may place orders with Lightning Source. However, the consumer cannot order that the book be printed. As summarized by the district court:

Evidence [*24] at trial established that the books printed by Lightning Source are the result of various types of "demands": wholesalers use computer-ordering systems that do not involve any viewing of sales information available on any web site; two retailers order books in a similar manner; some publishers order books by EDI (Electronic Data Interchange) transactions where there is no use of any web site; other publishers order books by placing orders through

the Lightning Source web site, but that ordering process requires no viewing of sales information; retail customers may order Lightning Source-printed books through Amazon's web site by reviewing sales information, but the books may have already been printed as a result of an Amazon order to Lightning Source.

Order of July 23, 2004, at 13. The evidence summarized by the district court was undisputed: Publishers, wholesalers, and retailers, order books from Lightning Source in various ways, but there is not direct ordering by retail customers.

4. "Printing on Paper Pages," Clause [7] of Claim 8

It was undisputed at trial that Lightning Source prints on rolls or webs of paper rather than on pre-cut sheets. The district [*25] court ruled that "printing the text of said selected one of said books on paper pages" of clause [7] does not mean that the book must be printed on previously separated pages; that is, the printing can be on long webs or continuous rolls and then cut into pages. This resulted in the following jury instruction:

This clause requires the printing of one or more books. The term "paper pages" does not require the text to be printed on sheets of paper, as opposed to being printed on continuous rolls or any other of a variety of forms of paper, although the book which is produced by the process must be comprised of pages as opposed to rolls.

The defendants argue that this interpretation and instruction are incorrect, and that the claim requirement that the book be printed "on paper pages" means that the paper is in the form of pages when printed, rather than being cut into pages after printing. The defendants stress that the Ross patent is for an immediate-production automatic printing process, and not one that requires commercial-scale equipment for paper-cutting after printing.

The specification states that the patented invention is the printing of individual copies of [*26] books at the customer site rather than in a "factory setting," col. 1, lines 13-19, and illustrates a "page printer 26," which prints a "stack of paper text pages," col. 8, lines 22-40, showing page-size paper. The specification describes the Ross invention only as printing on individual pages, as distinguished from a "factory setting" and the production of multiple copies. The Ross invention, and the claims, are directed to the on-site printing and binding of a single copy, for which printing on large webs and the require-

ment of cutting to page size would require equipment and procedures inimical to the substance of the Ross invention.

We conclude that the district court erred in construction of this clause. When this clause is correctly construed, no reasonable jury could find that it reads on a process of printing on large sheets or webs of paper that require the further processing step of cutting into pages after printing.

5. The Preamble

The district court held that the preamble phrase "high speed manufacture of a single copy of a book" does not limit the claim to immediate printing or require that only one copy be printed, and instructed the jury that:

The [*27] phrase "high speed manufacture" in the preamble does not limit the claim to require that all other steps, such as a customer's scanning sales information, selecting a book, and then printing and binding a book must take place within a short period of time. The preamble also does not limit the claim to the manufacture of a "single copy" of a book, as opposed to manufacturing several or multiple copies. . . . and does not require that the book be bound with a cover.

The defendants argue that this instruction is incorrect, and that the preamble explicitly limits the claim, in that it states the invention to which the claim is directed. They also point out that clauses [9], [10], and [11] require a cover.

[HN10] In considering whether a preamble limits a claim, the preamble is analyzed to ascertain whether it states a necessary and defining aspect of the invention, or is simply an introduction to the general field of the claim. In *Kropa v. Robie*, 38 C.C.P.A. 858, 187 F.2d 150, 152, 1951 Dec. Comm'r Pat. 177 (CCPA 1951), the court aptly described the inquiry as whether the preamble is "necessary to give life, meaning and vitality to the claims or counts." See, e.g., *Poly-America, L.P. v. GSE Lining Tech., Inc.*, 383 F.3d 1303, 1309-10 (Fed. Cir. 2004) [*28] (the specification described the "blown-film" as a fundamental characteristic of the invention, and its use in the preamble limited the claims); *In re Cruciferous Sprout Litigation*, 301 F.3d 1343, 1347-48 (Fed. Cir. 2002) (the preamble phrase "rich in glucosinolates" was limiting because the patentee relied on the preamble to distinguish the prior art in prosecution); *General Elec. Co. v. Nintendo Co., Ltd.*, 179 F.3d 1350, 1361-62 (Fed. Cir. 1999) (where the specification made clear that the invention was a mode of display of binary data on a raster scanned display device

rather than all display devices, the preamble language "displaying a pattern on a raster scanned display device by mapping bits" was a claim limitation).

The preamble serves to focus the reader on the invention that is being claimed. We conclude that the preamble in this case necessarily limits the claims, in that it states the framework of the invention, whose purpose is rapid single-copy printing of a customer's selected book as stated in clauses [5], [6], [7], and [8]. The high speed manufacture of a single copy is fundamental to the Ross invention, for the specification [*29] highlights that the customer may have a printed and bound copy within "three to five minutes." Col. 2, line 33. While ODMC points out that Lightning Source's web site touts "In one week, we craft 70,000+ books, one at a time," such mass production is not the invention described and claimed by Ross.

The district court's instruction that the preamble in this case does not limit the claim was incorrect, for the entirety of the claim implements the preamble's high speed manufacture of a single copy, upon customer review of the stored sales information, promptly printing and binding the single copy in response to the customer's selection. The preamble embraces the totality of these limitations, and limits the claim to the subject matter of the preamble.

II

Conclusion

The parties disputed most of the claim terms. Although we agree with the district court that [HN11] each term standing alone can be construed as having varying degrees of breadth, each term must be construed to implement the invention described in the specification. See *Phillips*, 415 F.3d at 1316 (Fed. Cir. 2005) ("The construction that stays true to the claim language and most naturally aligns with [*30] the patent's description of the invention will be, in the end, the correct construction"); *Autogiro Co. of Am. v. United States*, 181 Ct. Cl. 55, 384 F.2d 391, 397-98 (Ct. Cl. 1967) ("use of the specification as a concordance for the claim . . . is a basic concept of patent law"). Care must be taken lest word-by-word definition, removed from the context of the invention, leads to an overall result that departs significantly from the patented invention.

The defendants argue that no reasonable jury could have found that defendants infringe claim 8 on application of the correct claim construction. Lightning Source stresses that its system of producing books, usually in batches of 300, is the factory setting that Ross distinguished as a basis of patentability. The defendants concede that on occasion a single copy may be ordered and printed by Lightning Source, but that generally multiple

copies are ordered and produced. Defendants argue that neither Lightning Source nor Ingram nor Amazon provides customers with access to computers, and that no defendant provides or offers to customers an apparatus for point-of-purchase manufacture of a book. None of the defendants provides [*31] a system of computer access, nor sites for immediate printing and binding. The district court observed that wholesalers and publishers and stores, when ordering from Lightning Source, do not view promotional information; and that when retail customers order from Amazon's website the books may already have been printed.

ODMC responds that the customers provide themselves with computers, whether individual consumers or resellers. ODMC states that even if this court deems promotional material to be required by "sales information," and even if Lightning Source and Ingram do not provide promotional material, Amazon.com does provide such information to customers by computer. ODMC argues that when a customer orders from Amazon upon reviewing Amazon's promotional information, and Amazon in turn orders that the book be printed by Lightning Source, the defendants together infringe the patent. ODMC states that the jury could reasonably have found that Lightning Source and Amazon were liable for joint infringement, for the district court instructed as to joint infringement, as follows:

It is not necessary for the acts that constitute infringement to be performed by one person or entity. [*32] When infringement results from the participation and combined action(s) of more than one person or entity, they are all joint infringers and jointly liable for patent infringement. Infringement of a patented process or method cannot be avoided by having another perform one step of the process or method. Where the infringement is the result of the participation and combined action(s) of one or more persons or entities, they are joint infringers and are jointly liable for the infringement.

We discern no flaw in this instruction as a statement of law. However, the fundamental precept of the Ross invention is that the customer uses an on-site computer to view pro-

motional information, and then initiates rapid single copy printing. A customer's placing an order with Amazon, who in turn obtains the book, even if it is printed in single copy, is not the Ross invention. Each of these components of the claimed invention is in the prior art; their combination is the patentable invention, and it is the practice of the combination that is essential to infringement. Taken separately, Amazon's method of taking orders for books is prior art; Amazon does not print books, and the immediate on-site [*33] printing of the Ross invention is absent.

The printing of a single copy of a book, using computer technology and high-speed printing, was prior art to the Ross patent. The defendants correctly point out that the Ross invention is the immediate printing and binding of a copy of a book, where the customer initiates this activity upon review of promotional information stored in a computer that is provided by the seller. Mr. Ross stressed during reexamination that the distinction of his invention over the Interpress reference is the inclusion of promotional information for customer access, and prompt book production. The Interpress reference, as described by the reexamination examiner, shows computer-stored book text and information (but not promotional information), a means for selectively retrieving a stored book, and high-speed printing plus binding with a cover. However, Interpress does not show the direct customer role contemplated in the Ross patent; that role is central to the claim construction.

We conclude that no reasonable jury could find infringement, on the correct claim construction. The judgment of infringement is reversed. Because we reverse the judgment of infringement, [*34] the damages award is vacated.

III

The cross-appeal relates to the district court's denial of an immediate injunction upon entry of the district court's judgment, and the court's setting of a royalty for continuing operations during appeal. That remedy is within the district court's discretion. However, in view of our holding of non-infringement, the cross-appeal is moot, and is dismissed.

Each party shall bear its costs.

REVERSED; CROSS APPEAL DISMISSED

EXHIBIT 2

3/31/2006 Grimes, Jack D.

1 IN THE UNITED STATES DISTRICT COURT

2 FOR THE DISTRICT OF DELAWARE

3 -----x

4 INGENIO, FILIALE DE)

5 LOTO-QUEBEC, INC.,)

6 Plaintiff,)

7 v.) C.A. No.

8 GAMELOGIC, INC., and) 04-1532-KAJ

9 SCIENTIFIC GAMES CORPORATION,)

10 Defendants.)

11 -----x

12 Videotaped Highly Confidential

13 Deposition of JACK D. GRIMES, Ph.D.

14 Washington, D.C.

15 Friday, March 31, 2006

16 8:59 a.m.

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20 Job No.: 1-74922

21 Pages 1 - 304

22 Reported By: Joan V. Cain

3/31/2006 Grimes, Jack D.

1 Videotaped Deposition of JACK D. GRIMES,

2 Ph.D., held at the law offices of:

3

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10 Pursuant to Notice, before Joan V. Cain,

11 Certified Court Reporter and Notary Public in and

12 for the Commonwealth of Virginia.

13

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15

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21

22

3/31/2006 Grimes, Jack D.

A P P E A R A N C E S

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ON BEHALF OF DEFENDANT GAMELOGIC, INCORPORATED:

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ALSO PRESENT:

Anthony Delaglio, Videographer

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1 today?

2 A In preparation for the dep- --

3 Q Okay.

4 A -- within -- within the last three days.

5 Q So you -- you reviewed the Summary Judgment
6 Motion and -- motion and all of its exhibits?

7 A I reviewed the Summary Judgment Motion, and
8 I looked at some of the exhibits.

9 Q Some of the exhibits. Now, did -- out of
10 these various documents produced by the defendants,
11 did you rely on anything else that isn't listed
12 as -- or isn't identified in your report
13 specifically?

14 A No. I tried to be very careful about it.

15 Q Right. So the only things you relied upon
16 were things that are predominantly listed in
17 your -- in the appendices, which are the claim
18 charts?

19 A Yes, or in the body of the report.

20 Q If there's something in the body of the
21 report --

22 A Yes, right.

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1 Q -- where you relied on?

2 Now, if you look at page 4, under your
3 opinions and understandings, the last bullet point,
4 you take the -- you have the opinion that GameLogic
5 infringes certain claims of the '082 and '603
6 patents either literally or at the very least under
7 the Doctrine of Equivalents, and that's your opinion
8 today?

9 A Yes.

10 Q Okay. And if you go all the way down to
11 the bottom of the paragraph, you'll see that
12 there's -- in paragraph 17, there's -- you list your
13 definition of "one of ordinary skill in the art."
14 Do you see that?

15 A Yes.

16 Q What is -- or can you explain to me why you
17 believe that a person to be skilled in the art would
18 need a computer science bachelor's degree?

19 A Or the equivalent.

20 Q Or the equivalent. And what would you mean
21 by "the equivalent"?

22 A Well, you know, not everyone either

3/31/2006 Grimes, Jack D.

1 finishes their degree work or has the opportunity
2 to -- to -- to go to college --

3 Q Right.

4 A -- and so -- in fact, in my experience,
5 I've hired a number of people who did not have a
6 bachelor's degree but in fact were experienced and
7 excellent programmers.

8 So I would -- the reason for that is -- is
9 because of the knowledge that a person having a
10 degree in computer science would have, and you can
11 get that knowledge, you know, by working in
12 industry.

13 Q So if you had significant experience in
14 computer programming, it's very possible that you
15 could become or be one of ordinary skill in the art
16 under your -- even under your definition?

17 A Well, there's more to computer science than
18 programming.

19 Q Okay.

20 A But -- but it's entirely reasonable to pick
21 up all of the disciplines and understandings and
22 knowledge that you would gain from having a degree

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1 in computer science on the job, so to speak.

2 Q And can you just list for me the other
3 aspects of computer science besides computer
4 programming?

5 A Certainly. Compiler design, database
6 design, software development procedures, testing,
7 software testing, just to -- just to name it. Those
8 are some of the -- some of the big areas.

9 Q Can you think of any other big areas?

10 A Generally, there are courses on programming
11 languages which are, you know, the study of the
12 construction of the language and -- and how
13 different languages are better for different --

14 Q Applications?

15 A -- different purposes, right.

16 Q Anything else?

17 A Well, one thing that -- that I noticed
18 Mr. Brandin mentioned in his -- it called out
19 specifically was the -- you know, some knowledge of
20 encryption. So that would be one of the -- one of
21 the things that certainly would be introduced, and
22 there'd be a general knowledge of a person in

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1 computer science. Those are the ones that come to
2 mind right now.

3 Q Do you believe in order to be one of
4 ordinary skill in the art with respect to the two
5 patents in suit, that you would have to have
6 experience in the gaming industry?

7 A You would have to have an understanding of
8 how to apply, you know, computer science to various
9 fields. And I think the patent is an application of
10 computer science to the -- to the field of gaming.

11 Q Mm-hmm.

12 A I don't know whether you would have to have
13 a specific knowledge of -- of lottery games or not,
14 but certainly you would have -- you know, in your
15 normal understanding, you would take courses. For
16 example, in computer science, you would understand
17 statistics and -- and probability, other -- other
18 mathematical ideas.

19 Q Right.

20 A So certainly, the field of gaming would not
21 be foreign. But I don't know that a person would
22 have to have specific knowledge of gaming.

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1 Q Right. Because at least in reviewing
2 your -- your resume, you don't seem to have any
3 significant knowledge of the gaming industry, at
4 least via your employment, correct?

5 A That's correct. I mean, we're all familiar
6 with, you know, card games and -- and, you know,
7 slot machines and things like that. I am familiar
8 with -- you know, with the -- with the gaming
9 industry from that standpoint.

10 Q Right.

11 A For example, there's a company that makes
12 about 70 percent of the slot machines called IGT.

13 Q Mm-hmm.

14 A Actually, they're famous in the legal
15 circles.

16 Q Right.

17 A WMS Gaming versus IGT.

18 Q Yeah, I know.

19 A I visited their plant in the Reno, Nevada,
20 took a tour. A friend of mine's daughter is
21 the -- one of the managers in the engineering group,
22 so I had a chance to not only understand the normal

3/31/2006 Grimes, Jack D.

1 understood were in dispute?

2 A Yes. They're listed in Brandin's report.
3 He had a -- I think there were six or eight terms.

4 Q Right. But in -- when you served this
5 report, you hadn't seen Brandin's report?

6 A That's correct. That's correct.

7 Q So do you remember at the time talking to
8 the attorneys, when trying to do your infringement
9 analysis, any other terms that the attorneys
10 mentioned to you that they believed were in -- in
11 dispute?

12 A Oh, at the -- at the time I wrote this
13 report --

14 Q Yes, sir?

15 A -- these were the two terms that I
16 suggested seemed to be -- you know, in discussions,
17 seemed to be controversial. And then I said, Well,
18 why don't I provide an explicit opinion about
19 these -- these two terms. They said fine. So I
20 did.

21 Q And do you have an understanding, if you
22 look at the term "code," your definition is, "The

3/31/2006 Grimes, Jack D.

1 term refers to a representation of information based
2 on a set of rules"?

3 A Yes.

4 Q Okay. Do you have an understanding of what
5 is meant by "a set of rules"?

6 A Well, this would be the -- the rules would
7 be the way you would understand what the meaning was
8 associated with the code.

9 Q So the code has a particular meaning?

10 A Yes.

11 Q Okay. And is that meaning always
12 consistent than if it would be a code?

13 A Well, the -- the meaning --

14 MR. BUROKER: Objection, vague.

15 Go ahead.

16 A The -- the meaning would be -- but are you
17 asking me the -- the meaning of the term "code"
18 would be consistent?

19 BY MR. MOLINO:

20 Q No. No. I'm asking -- you used the word
21 "meaning" as part of your def- -- definition, and so
22 I was asking if that meaning was consistent. As in,

3/31/2006 Grimes, Jack D.

1 I think you said that the code would have a certain
2 meaning?

3 A Yes.

4 Q Okay. And is that meaning consistent
5 throughout the use of that code?

6 A Within a certain context
7 which -- which would -- which where the rules would
8 apply --

9 Q Right.

10 A -- yes, the meaning would be -- would be
11 consistent.

12 Q Okay. And then you -- you've now also
13 defined the -- the term "processor" as a device that
14 interprets and executes -- executes instructions,
15 and then you give an example, "as a central
16 processing unit of a computer."

17 Are you aware of any computers that don't
18 have central -- or don't have processors?

19 A Normally, when we think of processors, we
20 think of digital processors. Of course, there are
21 analog computers and --and they would do analog
22 processing. But computers, in my experience, would

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1 always contain at least one --

2 Q At least one?

3 A -- processor, yeah.

4 Q Because in order to compute, you need
5 something to process, correct?

6 A Correct. Compute and process are -- are
7 more or less synonyms in -- in this context.

8 Computing and processing are -- basically
9 mean the same thing in the context of this patent.

10 Q Okay. So -- and a central processing unit
11 is what your example was, but a computer would have
12 several -- but -- I'm -- let me rephrase that.

13 A modern computer would have several
14 processing units, correct?

15 A Yes. And also, at the time of filing of
16 the patent, a computer would have multiple
17 processors. For example, it would be -- typically,
18 there's a processor associated with the keyboard.

19 Q Mm-hmm.

20 A There's also typically a processor
21 associated with the communications function, the
22 network communications.

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1 Q And then you note, under your definition of
2 processor, that the claims can refer to more than
3 one processor?

4 A Right.

5 Q And if we look at Appendix B of your expert
6 report which has a copy of the claims, can you tell
7 me where in the claims you see it discussing more
8 than one processor?

9 A Well, element 1(e), for example, could
10 refer to one processor, or it could refer to more
11 than one processor.

12 Q And you say that because it says "a
13 processor"?

14 A Yes. Mm-hmm.

15 Q And you think of a processor as being more
16 than one processor?

17 A Well, in the normal English sense, you
18 know, you would think of a processor as being a
19 single processor. But it's my understanding that in
20 the -- in -- in patent ease, if you will, or the way
21 patents are written, that when an inventor writes a
22 processor, it can refer to one processor or to

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1 several processors.

2 Q Oh, so your understanding of patent law is
3 that the word "a" doesn't connote a singular
4 meaning?

5 A In -- in the case of this particular
6 phraseology as in element 1 (e), yes.

7 Q And it's not based on the idea that there's
8 a comprising transitional phrase where you can have
9 more than one processor, but it's based on the fact
10 that your understanding of a processor has been
11 interpreted to mean more than -- can mean more than
12 one processor?

13 A Yes.

14 Q Now --

15 A There's some -- some case law was
16 mentioned. I don't know what it is.

17 Q Okay.

18 A But you'd have to check with Mr. --

19 Q I'm sure we'll see it at some point.

20 A -- Mr. Buroker here, but -- but -- but my
21 understanding is based on those discussions and also
22 previous matters where when something -- the

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1 Q Right.

2 A There could be -- there could be multiple
3 buttons, you know, to spin the wheel; slow, medium,
4 or fast.

5 Q Mm-hmm.

6 A And so pushing one of those buttons would
7 be entering, you know, one game parameter. I'm not
8 sure what kind of a slot machine game you're talking
9 about. But if there was just one button --
10 normally, you have to push other buttons as well,
11 setting the -- setting the amount of the bet and how
12 many lines and things like that. But that would be,
13 certainly, inputting one game parameter.

14 Q Right. Does the claim require you to put
15 in more than one game parameter?

16 A Well, it says "game parameters," so --

17 Q And it's your understanding that that would
18 mean more than one, correct?

19 A Yes. Yes.

20 Q So, again, if you just push the button that
21 said spin and that was the only requirement to play
22 the game, would that be -- would that be covered by

3/31/2006 Grimes, Jack D.

1 the limitations of claim 1?

2 MR. BUROKER: Objection, vague.

3 A I don't know how the Court might construe
4 parameters, but just thinking about it in ordinary
5 English, you would have to put in at least two
6 parameters to do it. So I would say based on that,
7 no.

8 BY MR. MOLINO:

9 Q Okay.

10 A This might be another one of these strange
11 things that I don't know about patent law where if
12 someone says a plural, you know, it could include
13 the singular. I mean, I hadn't heard that
14 particular one.

15 Q Right. But if you say a "processor," that
16 could mean more than one processor?

17 A Yes, because I've run into that before in
18 other cases. It's strange, isn't it? It's --
19 there's all kinds of unusual grammar and English
20 things about patents and the way they're written.

21 Q Now, for your basis that the player wins or
22 loses the lottery game and an amusement game --

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1 well, actually, first, let's start off with the
2 lottery game that's referred to claim 1(c), you
3 think that is the same lottery game referred to in
4 claim 1(a), correct?

5 A Yes.

6 Q So that would be an overall, basically,
7 from purchasing a ticket to finding out a win
8 amount, that would be the lottery game to you?

9 A Yes. It would begin with purchasing a
10 ticket and it would end with revealing the prize
11 or -- or figuring out what the prize was.

12 Q And then -- and an amusement game, does
13 that, to you, connote that it has to be a different
14 game than the lottery game?

15 A Yes.

16 Q Now, do you have an understanding that the
17 access code in the GameLogic games actually controls
18 the outcome of the amusement game?

19 A Yes. It provides the -- the win amount,
20 which is the outcome of the amusement game.

21 Q So is it your understanding that GameLogic
22 has a game called "Prize Reel Blackjack"?

3/31/2006 Grimes, Jack D.

1 A Yes, mm-hmm.

2 Q And what is your understanding of -- what
3 is your understanding of when that game, amusement
4 game in Prize Reel Blackjack ends?

5 A Well, it ends at the same time the lottery
6 game ends which is, you know, here's your prize.

7 Q Okay. Now, does a person play Blackjack in
8 Prize Reel Blackjack?

9 A Yes. That's part of the amusement game.

10 Q And when the person busts, for instance, in
11 Prize Reel Blackjack, is that the end of the
12 amusement game?

13 A No.

14 Q Do you know whether the code in -- the
15 access code determines whether a person will win or
16 lose the specific blackjack game?

17 A It's my understanding that they do not.

18 Q They do not.

19 A It does not determine that.

20 Q Okay. But it's your understanding that
21 somehow the amusement game isn't playing just
22 blackjack, but it's also finding out whether you win

3/31/2006 Grimes, Jack D.

1 or lost the full amount?

2 A In the -- what's it called again?

3 Blackjack --

4 Q Prize Reel Blackjack.

5 A Prize Reel.

6 Q Reel, I think.

7 A Blackjack Prize Reel. In the Blackjack

8 Prize Reel game, you play blackjack and you spin

9 reels and that game ends at the same time the

10 lottery game ends, which is if you win a prize,

11 here's your prize.

12 Q Now, do you understand how one determines

13 when you spin the wheel or how the GameLogic

14 determines or decides when you will spin the wheel?

15 A It's my understanding that that game has

16 essentially two components to it. There's the

17 blackjack component and the spin-the-wheel

18 component.

19 Q You consider both of those --

20 A Those put together are the game.

21 Q Right. And you would never consider the

22 blackjack game to be the game -- the amusement game

3/31/2006 Grimes, Jack D.

1 A Yes. The processor -- entering a code into
2 a processor could be a software, a piece of
3 software.

4 Q But isn't that in a computing device?

5 A It would run on a computing device, yes.

6 Q It would be in a computing device?

7 A I don't know about "in," but it would run
8 on a computing device.

9 Q Right.

10 A Software needs a -- needs a -- some kind of
11 a computing element to execute the code.

12 Q So my question is --

13 A So you would enter the code into the
14 processor, which would be into the software that
15 you're interacting with, like a Flash client, would
16 be an example.

17 Q Mm-hmm. Okay. But I'm trying to figure
18 out, have you ever seen a processor that's not
19 within a computing device as far as the technology
20 that's described in the patents in suit?

21 A Well, the patent describes processors that
22 would be within a computing device, and it describes

3/31/2006 Grimes, Jack D.

1 processors that would contain computing devices. So
2 sure, it could be either or both.

3 Q And what's an example of a processor that
4 contains a computing device?

5 A Well, like the -- the Flash client running
6 on a personal computer.

7 Q Right. But that's a computing device with
8 a processor inside it, correct?

9 A Also, yes.

10 Q And where is the --

11 A The processor's the Flash client.

12 Q Right. And the computing device is the
13 entire computer, correct?

14 A You could say the computing device is the
15 entire computer, yes.

16 Q Okay.

17 A So that's an example of a processor --

18 Q -- within a computing device?

19 A A computing device that has a processor
20 within it.

21 Q Right. I'm looking for a -- the opposite,
22 a processor that doesn't have a computing device,

3/31/2006 Grimes, Jack D.

1 neither one.

2 A Oh, in the context of the patent, the
3 processors would always contain computing devices.

4 Q Would always contain computing devices?

5 A Yes. It would always include a computing
6 device.

7 Q Right. And in the context of the patent,
8 wouldn't the processor always be within a computing
9 device too?

10 A That can also be true, yes.

11 Q Well, is it true that they would always
12 would be?

13 A If by processor you mean the -- you know,
14 the Pentium processor --

15 Q Right.

16 A -- then it's within a computing device.

17 Q Right. Well, what else could they mean?
18 I'm just trying to figure out what claim 8 adds to
19 this patent.

20 A Oh, well, that's a different question.

21 Q Okay. Then you can explain it that way
22 maybe. How is claim 8 any different than what's

3/31/2006 Grimes, Jack D.

1 described in claim 1? because I think -- my
2 understanding of what we've talked about is that
3 claim 1 requires that there be a processor within a
4 computing device.

5 MR. BUROKER: I'm not sure what the
6 question is. I object.

7 THE WITNESS: I think he's trying to ask me
8 what limitations claim 8 adds to claim 1.

9 BY MR. MOLINO:

10 Q Right. That's a good way to describe it.

11 A Okay. I don't see that claim 8 adds
12 anything to claim 1. I think -- I think it's -- I
13 mean, I haven't analyzed it other than just looking
14 at it here, but claim 8 might be superfluous.

15 Q Okay. So claim 8, as far as your opinion's
16 concerned, is no more narrower than claim 1?

17 A Oh, I don't know what you mean by "narrow,"
18 but I don't --

19 Q Okay.

20 A It's not immediately clear what claim 8 --
21 further limitations claim 8 adds, because as I
22 understand the terms here, that claim 1 -- the

3/31/2006 Grimes, Jack D.

1 processor in claim 1 that the code is entered into
2 would include a processor within a computing device.
3 So -- so I haven't analyzed this in great detail,
4 but as I sit here now, claim 8 appears to be --
5 appears to be superfluous.

6 Q Okay.

7 A My goal in looking at claim 8 was whether
8 it was infringed or not, and that's the analysis I
9 did, so -- in fact, whether superfluous or not could
10 rest on some legal things that I don't know about,
11 so -- but just looking at the words here, I don't
12 see that it adds any additional limitations that are
13 not written in claim 1.

14 MR. MOLINO: Go off the record and switch
15 tapes.

16 THE VIDEOGRAPHER: We're going off the
17 record. The time is 2:05 p.m.

18 (Recess.)

19 THE VIDEOGRAPHER: This marks the beginning
20 of tape number 3 in the deposition of Dr. Grimes.

21 We are back on the record. The time is 2:08 p.m.

22 BY MR. MOLINO:

3/31/2006 Grimes, Jack D.

1 Q Okay. If we could talk about claim 9,
2 Dr. Grimes, claim 9 is the method of claim 1 wherein
3 the step of entering the code into a processor
4 includes a processor within an online subscription
5 service. What's your understanding of what an
6 online subscription service is?

7 A Well, I guess, the examples here in the --
8 in the right-hand column.

9 Q So would any ISP be an online subscription
10 service?

11 A Generally, yes.

12 Q What would make an ISP not an online
13 subscription service?

14 A Well, if there wasn't any subscription
15 involved. In other words, if you didn't have to pay
16 anything for the use of the service.

17 Q And it's your -- it's your opinion that
18 when describing an online subscription service, it's
19 not talking about a subscription service specific to
20 the playing of the lottery game?

21 A No.

22 Q It's just any online service that you have

3/31/2006 Grimes, Jack D.

1 to pay money to, to get online?

2 A That would certainly qualify, yes. My ISP,
3 for example, is -- is not AOL, but I would consider
4 that an online subscription service.

5 Q Are you aware of anybody that has access to
6 the internet where there's not a subscription
7 service?

8 A I'm not aware of any, but I would not be
9 surprised to learn that there was some, you know,
10 free access somewhere where you could gain access to
11 the -- online access where you personally did not
12 have a subscription involved. I mean, you might go
13 into a coffee shop and they would have free internet
14 access available.

15 Q And you wouldn't consider that a
16 subscription service?

17 A No.

18 Q Even though the coffee shop was paying for
19 it?

20 A Well, it would be -- I mean, someone would
21 be paying for it. In that sense, you could, yes.

22 Q Right.

3/31/2006 Grimes, Jack D.

1 A In that sense, it would be an online
2 subscription service. It depends on whose
3 perspective you want to adopt.

4 Q Right. I'm just trying to figure out whose
5 perspective you're adopting when you define --

6 A Well, if you adopt the perspective of the
7 user, then -- then there wouldn't be a subscription
8 involved. If you adopt the perspective of the
9 coffee shop, then, yes, there would be a
10 subscription involved.

11 Q Okay. When we were talking about paying
12 for a lottery game, you were telling me you adopted
13 the perspective of the actual person playing, or you
14 adopted the perspective of somebody else?

15 A The person playing the lottery.

16 Q So if a person was given a lottery ticket
17 by someone else, then that wouldn't be a lottery
18 ticket under your definition, correct?

19 MR. BUROKER: Objection.

20 A I haven't thought about that. You know,
21 the model that I had in mind was, a person goes into
22 a convenience shop and buys a lottery ticket, and

3/31/2006 Grimes, Jack D.

1 Q But it's your understanding --

2 A I wouldn't -- I wouldn't use that example
3 to characterize a code.

4 Q Would you use that as an example of one
5 type of code?

6 A No. I'd use that as an example of -- of --
7 of crypto analysis.

8 Q Can you explain to me what you understand
9 the definition of something that's encrypted and
10 something that's a code? Is there a difference
11 between those two?

12 A Well, encrypted -- something that's
13 encrypted conventionally certainly has a key
14 associated with it just like we described earlier.

15 Q Right.

16 A I talked about a symmetric key and I talked
17 about a public/private key pair.

18 Q Right.

19 A That is the way that, you know, people of
20 ordinary skill in the art talk about encryption.

21 Q Right.

22 A Because the central issue in an effective

3/31/2006 Grimes, Jack D.

1 encryption scheme is key management.

2 Q Uh-huh.

3 A And the encryption key being put in a
4 letter and sending it to you, that's an example --

5 Q Right.

6 A -- of a key management problem. Whereas
7 the RSA system, you know, you generate both keys.
8 You make one of them public. I use it to encrypt
9 things. You're the only one that can decrypt it.
10 See, that solves the key management problem. So --
11 so key management is a central issue in
12 cryptography. So keys, therefore, are a central
13 thing.

14 Now, if you decode something, you don't use
15 the term "key" to describe the decoding process.

16 Q If you have an encrypted message that was
17 in a coded message?

18 A Well, it's also coded, but the encryption
19 and the coding are separate.

20 Q What's separate about them?

21 A Well, the encryption, the goal is to keep
22 the information secret.

3/31/2006 Grimes, Jack D.

1 Q Mm-hmm.

2 A If you have a code, the -- the -- you would
3 encrypt a code. Okay?

4 Q I would encrypt a code.

5 A You could encrypt a code. In fact, that's
6 what the patent teaches.

7 Q Encrypting a code?

8 A Encrypting.

9 Q What is the code in the patent?

10 A Well, it would be the access code or the
11 destiny code. You would encrypt --

12 Q How is it then --

13 A You would encrypt the code, then you would
14 decrypt the code, and then you would decode the
15 code. They're separate steps because they're --

16 Q And the patent teaches all that?

17 A Yes.

18 Q Where does the patent teach that?

19 A Well, for example, in figure 3, box 25, it
20 says, "After it checks the validity of the code, it
21 says 'decrypt and decode the destiny code.'" So
22 there's one example. I could probably locate the

3/31/2006 Grimes, Jack D.

1 text that describes figure 3, and it would
2 probably --

3 Q Look at column 2.

4 A -- further explain that. Column 2 just
5 talks about decoding.

6 Q Right.

7 A So where is figure 3 discussed?

8 So for example, in column 5, line 39, this
9 is just one that -- I just looked for the
10 description that talks about block 25.

11 Q Mm-hmm.

12 A It says here the destiny code is, if it's
13 valid, in block 22. Then the device will decrypt
14 the destiny code and decode the destiny code in
15 block 25. So that combined operation makes the code
16 readable.

17 Q So one thing you do with the decoding is
18 figuring out whether the code is valid?

19 A No, that occurs earlier.

20 MR. BUROKER: Objection.

21 A That's an earlier step.

22 BY MR. MOLINO:

3/31/2006 Grimes, Jack D.

1 Q Okay. What is -- I'm still trying to
2 figure out, what's the difference -- what's the step
3 of decrypting this column or this passage
4 describing? If you had an alphanumeric code, what
5 would decrypting be?

6 A Well, it would be decrypting, and then in
7 the normal sense as we described decrypting. You
8 take the key that was used to encrypt it, assuming
9 it was a symmetric operation.

10 Q And you'd apply that?

11 A And you would apply that and you would
12 decrypt it. And that would give you --

13 Q A code?

14 A -- the destiny code --

15 Q Right.

16 A -- that was decrypted.

17 Q Okay. And then --

18 A And then you would decode the destiny
19 code --

20 Q Right.

21 A -- to determine the -- the outcome.

22 Q And what would the step of -- say, now --

EXHIBIT 3

3/23/2006 Bertram, William

1 IN THE UNITED STATES DISTRICT COURT

2 FOR THE DISTRICT OF DELAWARE

3 -----x

4 INGENIO, FILIALE DE)

5 LOTO-QUEBEC, INC.,)

6 Plaintiff,)

7 v.) C.A. No.

8 GAMELOGIC, INC., and) 04-1532-KAJ

9 SCIENTIFIC GAMES CORPORATION,)

10 Defendants.)

11 -----x

12 Videotaped Highly Confidential

13 Contains GameLogic Confidential Information

14 Deposition of WILLIAM BERTRAM, Ph.D.

15 Washington, D.C.

16 Thursday, March 23, 2006

17 9:34 a.m.

18
19
20 Job No.: 1-75305

21 Pages 1 - 260

22 Reported By: Joan V. Cain

3/23/2006 Bertram, William

1 Videotaped Confidential Deposition of
2 WILLIAM BERTRAM, Ph.D., held at the law offices of:

3

4 HUNTON & WILLIAMS, LLP
5 Suite 1200
6 1900 K Street
7 Washington, D.C. 20006
8 (202) 955-1500

9

10 Pursuant to Notice, before Joan V. Cain,
11 Certified Court Reporter and Notary Public in and
12 for the District of Columbia.

13

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22

3/23/2006 Bertram, William

A P P E A R A N C E S

2

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Telephone: (202) 373-6000

ALSO PRESENT:

Christopher Brandin

William DiMonte, Videographer

3/23/2006 Bertram, William

1 Q Right above that is amusement game --

2 A Right.

3 Q -- and your definition of amusement game?

4 A Yes.

5 Q You stated, "It is a game that amuses the
6 player." Is that still your definition today?

7 A Yes.

8 Q How's it determined whether it amuses the
9 player?

10 A Well, that's a very subjective question.
11 Different people are amused by different things.
12 But it -- it provides some excitement, some variety,
13 some anticipation.

14 Q Would you add those adjectives to your
15 definition?

16 A Well, all of those things are covered by
17 "amuses." If you're excited, if you --

18 Q But -- but I think, as you stated,
19 amusement -- "what amuses you may not amuse me," so
20 it is subjective; is that correct?

21 A I would -- I would agree with the
22 subjective nature of amuses, yes.

3/23/2006 Bertram, William

1 Q Doesn't a lottery by itself create
2 anticipation?

3 A Yes.

4 Q So how's the amusement game different than
5 a lottery?

6 A Well, you know, again, the amusement game
7 is part of the lottery. The whole purpose of these
8 two patents is to take part of the lottery game
9 and -- and expand it to increase the amusement. You
10 could argue that -- that rubbing the Latex off a
11 scratch-off ticket is amusing because there's a
12 slight delay before you find out what you have won.
13 But the whole purpose of adding and expanding this
14 amusement section of the lottery game is to give a
15 little bit more enjoyment or amusement to the
16 player.

17 Q Your definition of amusement game, the
18 subjective nature of it, it amuses the player. I
19 think we both agree that's subjective; is that
20 correct?

21 A To some -- to some degree, and how much
22 and -- and how do you measure amusement is -- is

3/23/2006 Bertram, William

1 very subjective.

2 Q Does that make the whole claim 1 subjective
3 because it's premised on the amusement game?

4 A Well, I don't -- I don't -- I don't think
5 the -- the presence of an additional amusement game
6 is subjective. How much it amuses you versus
7 somebody else is subjective. But the fact that
8 anything that helps reveal the results in a more
9 entertaining way is an amusement game and how much
10 it amuses is -- is subjective, but I don't think
11 that's really a question.

12 Q Are you familiar with the use -- excuse me.
13 I guess, in terms of your infringement
14 analysis then for claim 1, how would you know when
15 you fall within the claim given that the amusement
16 game component is somewhat subjective?

17 MR. BUROKER: Objection. That misstates
18 his testimony.

19 A Again, I didn't -- that's not what I said.
20 I said the amount of amusement is subjective.
21 Anything -- and, again, we're -- a basic lottery
22 game is -- that we're using is the scratch-off

3/23/2006 Bertram, William

1 A Again, the lottery game has those three
2 components. You obtain a game piece or a ticket.
3 In a scratch-off game -- let's go back to the
4 scratch-off, which is our basic model of a lottery
5 game. You go buy a ticket: participation. The
6 ticket was printed giving you a chance. So when you
7 buy the ticket, now you have a chance at winning a
8 prize, and by scratching off the Latex you're going
9 to reveal how much you won or lost. And so that is
10 the whole lottery game.

11 Now if we're going to take the third part
12 and say, Let's expand it, let's make it more
13 amusing, it's still inside the umbrella of the
14 lottery game. Because the lottery game is not over
15 until you actually know how much you won or lost, in
16 my opinion.

17 Q Let me go back to the claims in the '082,
18 please. In claim 1 --

19 A Hold on a minute.

20 Q Sure.

21 A Okay.

22 Q -- it states, "The gaming piece, including

3/23/2006 Bertram, William

1 a code which includes data indicating whether the
2 player wins or loses the lottery game and an
3 amusement game, the data being unrecognizable to the
4 player such that the player does not know whether
5 the player will win or lose the game prior to the
6 play of the amusement game." Do you see that?

7 A Yes.

8 Q What does "unrecognizable" mean as used in
9 that claim element?

10 A Well, it means the player can't look at
11 that code and know how much he's going to win or
12 lose.

13 Q Let me follow up. Let me turn your
14 attention to your first report, Exhibit 86, please.

15 A I'm sorry. What?

16 Q 86.

17 A Page or paragraph?

18 Q Paragraph -- it's page 11, paragraph 37.

19 A Okay.

20 Q I'm looking at your definition of code,
21 where you state, "It's a system of symbols as
22 letters or numbers used to represent the signed and

3/23/2006 Bertram, William

1 often secret meanings." Do you see that?

2 A Yes.

3 Q Do you still agree with that definition of
4 code as used in the patent?

5 A Well, this was a general definition of code
6 taken from the source as indicated there, and I
7 think it's a fairly general definition that covers a
8 lot of ground.

9 Q Does this definition comport or comply with
10 what's described in the patent?

11 A I believe so, yes.

12 Q How is the -- the unrecognizable concept
13 captured in that definition?

14 A Well, as it says at the end of that, and
15 often secret meanings, which means it's encrypted or
16 has an unrecognizable appearance to it.

17 Q What do you mean by "encrypted"?

18 A Well, there are a lot of different
19 encryption schemes, but it's taking the actual
20 content of the code and encrypting it in a way that
21 it cannot easily be deciphered or read by -- by a
22 player.

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1 Q Okay. Well, let's go -- sorry to do this
2 to you -- but back to the patent. And I'm in
3 column 2, the bottom of that column where it says,
4 "description of the preferred embodiments."

5 A Hold on a minute. Okay. I'm sorry?

6 Q Column 2.

7 A Oh, '603, hold on a minute.

8 Q This is the '082 patent.

9 A Yeah, I had it on top and got -- okay.

10 Q I'm reading that -- that section where it
11 says, "Figure 1 is a block diagram of the basic
12 components of the present system. Block 10 shows
13 the start of the system requires a secure system for
14 generating and controlling the tracking" -- "and
15 tracking encrypted symbolic codes that signify the
16 outcome of the particular game of chance to be
17 played by the player. These codes are called
18 'destiny codes' because their primary function is to
19 store the outcome of the game of chance."

20 And then a little further down in the same
21 paragraph it states, "If the player knew the
22 procedure to decode the destiny code, the player

3/23/2006 Bertram, William

1 would be able to determine if the destiny code
2 contained a winning chance or a losing chance. The
3 total and actual result of the game is encoded in
4 the destiny code. By decoding the destiny code, one
5 reveals whether or not the game has a winner or a
6 loser; and if it is a winner, the prize won." Do
7 you see that?

8 A Yes.

9 Q Is that synonymous -- the destiny code
10 synonymous with what you're defining code as?

11 MR. BUROKER: Objection.

12 A Clearly, this is a specific example of a
13 code that's covered under the general definition
14 of -- of code that we gave from the dictionary.

15 BY MR. PATNAIK:

16 Q How is -- which one applies as far as how
17 code is used in the claims of the '082 and '603
18 patents?

19 A I'm sorry?

20 Q Which one is more like the way code is used
21 in the claims of the '603 and '082 patents?

22 A Which -- I still don't understand. Which

3/23/2006 Bertram, William

1 one is more --

2 Q Well, I understand you're saying the
3 destiny codes, as we just read, are a specific
4 definition of codes?

5 A A specific example --

6 Q A specific example.

7 A -- of the general definition of code.

8 Q As code is used in the claims of these two
9 patents, is it more in line with the specific
10 example or more in line with the general definition
11 of code?

12 A Well, you know, again, the -- the claim
13 usage -- this is one embodiment which doesn't limit
14 the claim. The claim is talking about general code,
15 which is more -- somewhere inside the definition,
16 not necessarily limited to the preferred embodiment.

17 Q Within the destiny code, your idea of
18 encryption for the code is captured; is that
19 correct? Is the destiny code encrypted?

20 A It can be. I don't know whether it has to
21 be or not. If -- if according to the claim it is
22 unrecognizable, well, then it's encrypted. There

3/23/2006 Bertram, William

1 might be a way to make it unrecognizable without
2 some complicated encryption scheme, but I guess
3 anything that makes it unrecognizable would be
4 considered encryption.

5 Q Does decrypting the unrecognizable code
6 restore it to its original content as you're using
7 those terms?

8 A Decrypting?

9 Q Yes.

10 A Yes.

11 Q It would restore it to the original
12 content?

13 A Right.

14 Q And that's true for code in the general
15 sense as well as the destiny code?

16 A In a general sense, when you encrypt and
17 decrypt, you end up at the same starting point,
18 hopefully.

19 Q I'm going to mark as Exhibit 89 a document
20 bearing Bates numbers GL 00044 through GL 00159.

21 (Deposition Exhibit 89 was marked for
22 identification and was attached to the deposition

3/23/2006 Bertram, William

1 transcript.)

2 BY MR. PATNAIK:

3 Q Do you recognize this document,
4 Dr. Bertram?

5 A Well, not. I assume this is the
6 prosecution history for the '082 patent.

7 Q Have you reviewed this before?

8 A I have.

9 Q Did you review it in preparation of your
10 first report?

11 A I did not read the whole thing in
12 preparation. I think there were a couple of places
13 where we referenced.

14 Q Well, let me draw your attention
15 specifically to GL 00133, please.

16 A 133, okay.

17 Q The paragraph near the bottom, second half
18 of the page. I'm reading the patent, "The present
19 invention relates to a game and method in which a
20 player acquires a gaming piece such as, for example,
21 the ticket. The ticket includes encoded data or a
22 code unrecognizable to the player. The code

3/23/2006 Bertram, William

1 determines whether the player will win or lose." Do
2 you see that language?

3 A I do.

4 Q Does that description --

5 MR. BUROKER: It also says, "the game?"

6 MR. PATNAIK: I'm sorry?

7 MR. BUROKER: You said -- you stopped at
8 "lose," I think.

9 MR. PATNAIK: Oh, I'm sorry. "Win or lose
10 the game," that's right.

11 BY MR. PATNAIK:

12 Q What "game" is that referring to? Do you
13 know?

14 A What game?

15 Q Correct. It says the code determines
16 whether the player will win or lose the game. Which
17 game is that referring to?

18 A Well, the game that is being played by the
19 player, the lottery game.

20 Q Just the lottery game?

21 A That's all there is, it's a lottery game.

22 Q What's the amusement game?

3/23/2006 Bertram, William

1 has been marked Exhibit 90, which is the Clapper
2 patent.

3 A Wait a minute. Okay.

4 Q The bottom of column 1, please. It's at
5 line 62. It says, "The present invention is also
6 applicable to the automating of various other types
7 of games, including games of playing cards as
8 hereinafter described, and is particularly adaptable
9 to games which have a plurality of substrates
10 bearing indicia thereon in the nature of playing
11 cards or the cards used in a game of chance." Do
12 you see that?

13 A I do.

14 Q Do you think this Clapper patent is limited
15 to Pull-Tab games?

16 A Well, without going into a long analysis,
17 I still think the whole concept of these two strips
18 of tickets that -- whether they have indicia on them
19 or whether they have win amounts on them or whether
20 they have claim cards on them, is still very
21 limited. The concept is still the same.

22 Q Okay. Going back to the concept, which I

3/23/2006 Bertram, William

1 think you were clarifying before for the Clapper
2 games -- or the games covered by the Clapper patent,
3 I should say -- you have to reference the winning
4 indicia combination to know whether your indicia is
5 a winner or loser; is that correct?

6 A Except in the cases where the win amount is
7 actually the indicia itself.

8 Q Well, let's say, for example, the key or
9 the winning indicia combination states, If you
10 win -- if you get three 7s on your Pull-Tab, you win
11 \$50. Without knowing that reference, three 7s in a
12 vacuum doesn't mean anything to you if you expose it
13 on a Pull-Tab; is that true?

14 A That, theoretically, is true. But I think
15 anybody that would play the game -- it's like
16 playing the slot machine. If you get a cherry, you
17 know automatically. You don't have to go out and
18 look at the play table which -- you know what you're
19 going to win. People that play the games know what
20 the value of the different symbols are.

21 But, theoretically, you do have to
22 reference at some point, either before or after.

3/23/2006 Bertram, William

1 Q So your last sentence in that paragraph,
2 "Reference to other data is not necessary to
3 determine the win/loss result in a game of
4 Pull-Tab," is not absolutely correct; is that true?

5 A Well, it -- it does not include
6 specifically the step of looking. But, again, I was
7 bearing in mind the games where you actually reveal
8 a win amount on these tickets, which are very
9 common.

10 Q But the Clapper patent addresses more than
11 just the win amount?

12 A That's right. No, I agree. And one has to
13 have knowledge at some point of what different
14 indices, combinations of them, are going to pay.

15 Q Otherwise, the indicia doesn't mean a whole
16 lot?

17 A Well, except that when you take your ticket
18 to get it redeemed somewhere, you're going to find
19 out how much you -- it doesn't change anything, how
20 much you're going to win or lose, but it -- most
21 players would like to know.

22 Q That was my point. Aren't most of these

3/23/2006 Bertram, William

1 people playing to win money, and they want to know
2 how much they're going to win?

3 A I would think so, yes. I mean, that's the
4 purpose of playing the game.

5 Q So following through with my -- with that
6 statement, the Clapper patent -- the indicia
7 actually does have to be referenced to something
8 else for it to be meaningful?

9 A I -- I would agree with -- in the context
10 that we just talked about, yes.

11 Q Would -- is the indicia -- if you don't
12 have the reference, is the indicia on Clapper
13 unrecognizable, as used in the patents in suit?

14 A Not in my understanding, no.

15 Q Why not?

16 A Well, I mean, let's say -- let's say we're
17 talking about fruit combinations. Three lemons is
18 three lemons. I recognize three lemons. It's not
19 encrypted.

20 Q Do you know what three lemons means?

21 A I don't necessarily know how much it's
22 going to pay unless I have looked at the pay table,

3/23/2006 Bertram, William

1 but it's not encrypted in the sense that three
2 lemons are three lemons. And I know I've got three
3 lemons.

4 Now, the question is, What does that
5 correspond to?

6 Q So is the indicia in Clapper encoded?

7 A Not in my opinion, no.

8 Q Does indicia in Clapper, then, contain the
9 win or loss information on its face?

10 A Well, again, what I just said -- I can
11 repeat what I just said.

12 In the cases where the indicia are actual
13 win amounts, it does. In the case where it is a
14 symbol combination, one has to reference a pay
15 table, which we call a "pay table," what different
16 symbol combinations will pay.

17 Q In that case, is the indicia indicating?

18 A It's a one-to-one correspondence to -- I'm
19 not sure I would use the word "indicating." It
20 could be included in indicating.

21 Q Well, let me turn your attention back to
22 where we were in paragraph 33.

3/23/2006 Bertram, William

1 A Paragraph 33 of -- oh, of my second report?

2 Q In your second report.

3 A Yeah.

4 Q You state that, "Clapper discloses a code
5 that contains the win/loss result on its face, and
6 applicant's claimed invention discloses the code
7 that includes data that indicates a win/loss
8 result."

9 If my understanding's correct, your three
10 lemon example would indicate what the win/loss
11 result is when you reference the table, the winning
12 combination indicator or -- I'm sorry -- the winning
13 indicia combination.

14 Would you agree with that?

15 A Well, you know, this is -- it's kind of a
16 gray area, but there -- it's just an extra
17 step -- the three lemons are there. They exist.
18 You take your ticket and they're going to tell you
19 how much you've won or lost. It's not going to
20 change.

21 And the correspondence of those three
22 lemons is a pay table, which will -- which will --

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1 again, a one-to-one correspondence with a pay amount
2 that you're going to win.

3 Q Does the player without the reference to
4 the pay table know what he's going to win?

5 A Presumably, not unless he takes his ticket
6 down and gets it redeemed.

7 Q Going back to the use of the word "code" in
8 the patents in suit. For the code as used in the
9 patents, when is the win/lost value generated?

10 MR. BUROKER: Objection, vague.

11 Go ahead.

12 BY MR. PATNAIK:

13 Q If you understand the question.

14 A Well, I basically understand the question.
15 Let's go back. If I could backtrack to the
16 scratch-off ticket example.

17 When the tickets are printed, the tickets
18 are printed with various win/loss amounts under the
19 latex at the time of printing.

20 Q So as code is used in the patents in suit,
21 the win/loss value's generated at its creation, the
22 code's creation?

3/23/2006 Bertram, William

1 Q Well, correct me if I'm wrong, but isn't
2 one of the stated purposes of these patents to also
3 maintain a certain level of security for the codes?

4 MR. BUROKER: Objection.

5 A Well, to make a commercial embodiment of
6 this patented device, that would be an important
7 feature. I don't think the patent goes into great
8 lengths on security and what kind of encryption is
9 necessary and what level of security is needed to
10 make it commercially successful.

11 BY MR. PATNAIK:

12 Q The code, however, always has to be
13 unrecognizable; is that correct?

14 MR. BUROKER: Objection. What claim?

15 MR. PATNAIK: The independent claims in
16 both patents.

17 A I believe they all say that it's
18 unrecognizable, yes.

19 BY MR. PATNAIK:

20 Q Let me turn your attention to the
21 '603 patent now, which has previously been marked as
22 Exhibit 55, and going directly to claim 1,

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1 column 16.

2 A Right.

3 Q There's a -- the second element states,
4 "Reading the code by a processor." Do you see that?

5 A I do.

6 Q And going back to your first report,
7 Exhibit 86, paragraph 38, on page 13, 38(c).

8 A Yes.

9 Q I think you defined "read" to mean to input
10 data from a storage device, a data medium, or any
11 other source.

12 You think that definition applies; is that
13 correct?

14 A I do, yes.

15 Q So you conclude, "Thus reading the code by
16 a processor means to input the code, a system of
17 symbols that represent an assigned and secret
18 meaning from some source." Do you see that?

19 A I do.

20 Q And you continue, "That source may thus
21 include a keyboard, touch screen, mouse, data
22 storage device, data medium, or some other computer

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1 software source"; is that correct?

2 A Yes.

3 Q Now, my question to you is, Given that
4 definition of the reading the code by the processor
5 for claim 1 of the '603 patent, how is that
6 different than claim 10 of the '082 patent?

7 A Just a minute.

8 Q And specifically a processor for receiving
9 said input by the player prior to amusement game
10 play.

11 My question is, What's the distinction
12 between those two claim elements?

13 A Well, it appears that the element in
14 the -- the '603 patent says, "Reading the code by a
15 processor," which means inputting the code. So it
16 now has the code. And this implies that the code
17 has already been input, and a processor for
18 receiving the code, which is -- I don't really see a
19 clear distinction between the two.

20 The processor -- the processor that's
21 reading the code is the processor for receiving the
22 code input by the player.

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1 Q Are those two elements the same then?

2 A They -- without -- without further
3 analysis, they look like they're accomplishing the
4 same step.

5 Q Is that your opinion today?

6 A That's my opinion right now as I speak,
7 without thinking about it in detail.

8 Q Did you consider these two
9 elements -- excuse me.

10 Did you consider the reading the code by a
11 processor element prior to today?

12 A Well, I have obviously looked at it. And I
13 didn't see or I didn't think it had said anything
14 different than reading the code by a processor or a
15 processor receiving the code input by the player.

16 To me, it's different language that says
17 the same thing.

18 Q Let's stick with the '082 patent again,
19 please, claim 1, for now.

20 A Okay.

21 Q How many processes -- excuse me.

22 How many processors are being used in this

3/23/2006 Bertram, William

1 claim?

2 A That's a good question.

3 Q Do you have an opinion?

4 A Well, the first element that
5 says, "Entering the code by the player into a
6 processor," and I understand claim language that a
7 processor means one or more processors.

8 And I would also want to expand a little
9 bit on this. Any electronic device, other than
10 a washing machine, has multiple microprocessors and
11 dedicated microprocessors in it besides the CPU,
12 which are also sometimes dual CPUs. And so this
13 implies that it could or could not be the same
14 processor that's generating the amusement game.

15 A processor is a very general -- I mean,
16 anything that processes is a processor. It doesn't
17 mean a microprocessor or a CPU necessarily.

18 So there could be more than one processor
19 involved in -- after the code is entered into a
20 processor. Another processor could generate the
21 amusement game.

22 Q Let me back up before you continue.

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1 Q Have you already articulated it today?

2 A In -- in an indirect way, I have, yes.

3 Q Would it be possible for you to make it
4 more direct and tell me what you think processor
5 means as used in the claims?

6 A Well, the claim language is very vague on
7 what a processor is. I think anything that
8 processes data could be considered a processor.
9 From a calculator which processes data on -- on down
10 to the mag card readers, floppy disk drive readers,
11 whatever, could be processors. Could they process
12 data? It's -- it's a very vague and general term.

13 Q Let's look at the '082, claim 16, please.
14 Actually, why don't we start with claim 8 which
15 states, "The method of claim 1 wherein the step of
16 entering the code into a processor includes a
17 processor within a computing device." Which
18 processor is claim 8 referring to?

19 A "Claim 1 wherein the step of entering the
20 code into a processor includes a processor within a
21 computing device."

22 It is referring, presumably, to the

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1 processor on the first element -- or second element
2 of claim 1, "Entering the code by the player into a
3 processor."

4 Q And that may be different from the
5 processors and the subsequent elements in claim 1?

6 A In -- in my opinion, yes.

7 Q Going to claim 16 then. "The lottery-type
8 game of claim 10 wherein said processor includes a
9 computing device." Do you see that?

10 A I do.

11 Q Which processor is that referring to?

12 A Well, I must -- I must say I agree that the
13 language of this claim is -- is a little bit
14 muddled. But presumably, again, it is talking about
15 the first processor for receiving the code by the
16 player includes -- or is connected to a computing
17 device.

18 Q When is there a processor not within a
19 computing device?

20 A Oh, all the time.

21 Q Can you give me an example?

22 A Although, again, it becomes a little bit --

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1 let's say you have a mag card reader, magnetic card
2 reader, and the magnetic card reader is dedicated to
3 reading the symbols on the magnetic card period. It
4 now takes the information and stores it. That's the
5 end of it. There's no computing, there's nothing.
6 It's just -- its job is to read the magnetic stripe
7 on a -- on a mag card.

8 Dedicated microprocessors are quite often
9 noncomputing. They have the ability, but they are
10 not set up that way.

11 Q Is there a computing device ever inside of
12 a processor?

13 A Again, if we define processor to be any
14 general system that processes data, there could well
15 be a dedicated computing device inside the -- the
16 processor.

17 Q So processor can be very broad in that
18 sense?

19 A I -- I think in the context of the claims,
20 it -- it -- a processor is very broad. It doesn't
21 say it's an Intel microprocessor or --

22 MR. PATNAIK: Why don't we break for lunch

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1 now.

2 MR. BUROKER: What time is it? Okay.

3 Sure.

4 THE VIDEOGRAPHER: We are going off the
5 record. The time is 12:34 p.m.

6 (Whereupon, at 12:34 p.m., the
7 above-entitled matter was recessed until 1:34 p.m.)

8 THE VIDEOGRAPHER: We are back on the
9 record. The time is 1:34 p.m.

10 CONTINUED EXAMINATION BY COUNSEL FOR DEFENDANT
11 GAMELOGIC, INC.

12 BY MR. PATNAIK:

13 Q Dr. Bertram, we were, before the lunch
14 break, talking about some of the claims and the
15 claim language. Is there such a thing as a
16 processor that does not contain a computing device?

17 A I could imagine many things.

18 Q Could you give me an example?

19 A Let's take an old Friden electromechanical
20 calculator that processes data. It doesn't have a
21 computing device in -- in terms of -- of electronic
22 computing device.

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1 Q How about today, in today's technology, is
2 there any such thing as a processor that does not
3 contain a computing device?

4 A Well, let me ask you how you define a
5 computing device. What do you mean by a "computing
6 device"?

7 Q I'm using it as it's used in the
8 '082 patent.

9 A Which is?

10 Q You're the expert. You tell me.

11 MR. BUROKER: I believe he's looking at
12 claim 8, for example.

13 BY MR. PATNAIK:

14 Q Yeah, that's -- that's fair.

15 A I'm thinking.

16 Q Sure.

17 A Well, again, I would -- I would say --
18 answer that, like I said before lunch, that there
19 are many dedicated processors that are -- are not
20 doing any computing whatsoever. They have very
21 specific functions, none of which involved
22 computing, such as a washing machine.

3/23/2006 Bertram, William

1 it's -- if it's an entry to a data -- data table
2 somewhere --

3 Q Right.

4 A Even if you could read the numbers, you
5 don't know what the win/loss was.

6 Q Well, I understand that. I'm not talking
7 about table -- tables here. I'm talking about
8 a -- a code that -- a code that has a simple
9 encryption method used to create it. I'm trying to
10 figure out when one would know whether it was
11 unrecognizable or not?

12 A Oh, you know, I -- I -- unless you know
13 what you're looking for, I -- I'm not sure I could
14 answer that question.

15 Q Well, what happens if the numbers are just
16 reversed, instead of a thousand, it's three 0s and
17 a 1, would that be unrecognizable to the player?

18 A It would be unless you had some
19 information, unless you found out by experience
20 that, Oh, that really means a thousand dollars --

21 Q Right.

22 A -- then presumably, you could play a few

3/23/2006 Bertram, William

1 more tickets and -- and -- and decode such a simple
2 system.

3 Q Right. So --

4 A But to start with, I mean, the first time
5 you get a ticket, it's going to be unrecognizable.
6 You have no idea what you're going to win or lose.

7 Q So, again, unless you have some other
8 information, you wouldn't know three 7s would also
9 equal a thousand dollars if that's what the payout
10 was, right?

11 A No. I mean, again, three 7s corresponds to
12 a pay table somewhere, hopefully right in front of
13 you.

14 Q Well, doesn't -- doesn't 001 -- in my
15 previous example, doesn't that correspond to a pay
16 table somewhere too?

17 A Well, after you decrypt it and -- and then
18 know whether it's a data look-up table or whether
19 it's a win amount, it does correspond. But it's
20 something that's not easily recognizable, while the
21 three 7s are easily recognizable, the three 7s. And
22 if you're at the table, you can look three 7s pays

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1 you that much.

2 Q Right. But if you had a table, you could
3 see 001 paid you that much too, right, or 0001?

4 A But then you would defeat the whole purpose
5 of -- of encryption.

6 Q Well, I understand that. But does the
7 claim require that you purposely encrypt?

8 A To some degree, yes. I mean, it -- it says
9 the data being unrecognizable, which implies some
10 form -- some form of encryption.

11 Q Some form of encryption.

12 A I mean, you're putting a lot of
13 hypotheticals in by saying, Well, if you play it
14 enough times, maybe you can figure it out.

15 Q Oh, I understand. I'm just trying to make
16 sense of the claim.

17 A Yeah.

18 Q Okay. If you could turn to paragraph 40.

19 A Of?

20 Q Of your -- of your second report.

21 A Oh.

22 Q Did you read paragraph 40?

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1 A There is a grammatical spelling at the
2 bottom of that. It should be "game" instead of
3 "came."

4 Okay.

5 Q It says that there is no payment associated
6 with participation in a Cohen's promotional game nor
7 are some of his embodiments of the game based on
8 chance. The results are predetermined.

9 Now, you're saying that Cohen discloses a
10 promotional game, and, therefore, that's not a
11 lottery game, correct?

12 A That's correct. There's no participation.

13 Q No -- say that again. I'm sorry. I must
14 have caught you wrong.

15 A There's no wager. There's
16 no participation, the step of buying the ticket.

17 Q And it's your understanding that a lottery
18 game requires one to purchase a ticket?

19 A Well, we covered that earlier --

20 Q Right.

21 A -- and as I said, I've never seen a lottery
22 game that was free.

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1 Q Okay.

2 A That doesn't mean they don't exist, but
3 I've never seen one.

4 Q Actually, we don't need to mark it as 92.
5 It's already marked as 23.

6 I've put in front of you what's previously
7 marked as Kaye Exhibit --

8 MR. MOLINO: I'm sorry. Let's mark it as
9 92 to make life easier. I'm sorry.

10 (Deposition Exhibit 92 was marked for
11 identification and was attached to the deposition
12 transcript.)

13 BY MR. MOLINO:

14 Q Okay. I've put in front of you what was
15 previously marked as Kaye Exhibit 23, but we'll mark
16 it for purposes of this deposition as Exhibit 92.

17 And this is a license agreement between
18 Mr. Kaye and Ingenio, where Ingenio was granting
19 back Gizmo Enterprises, Mr. Kaye's company, certain
20 rights in the patent in the suit, '083 and
21 '603 -- or '082 and '603 patents.

22 Have you reviewed this document before?